

Fig 1 : Basic Configuration of a Storage System for Archives

DATA STORAGE SYSTEMS AND METHODS Inventor: Takashi Amano Attorney Docket No.: 36992.00108 (HAL 266)

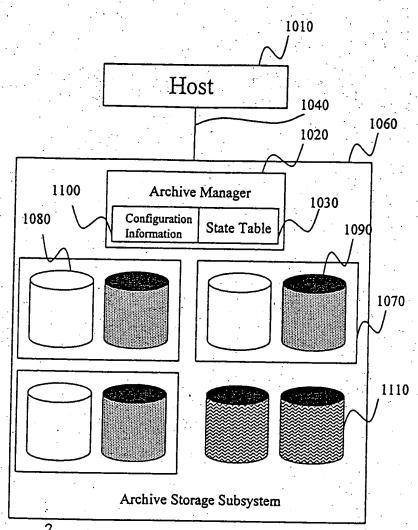


Fig #: the Archive Manager # in the Archive Storage Subsystem

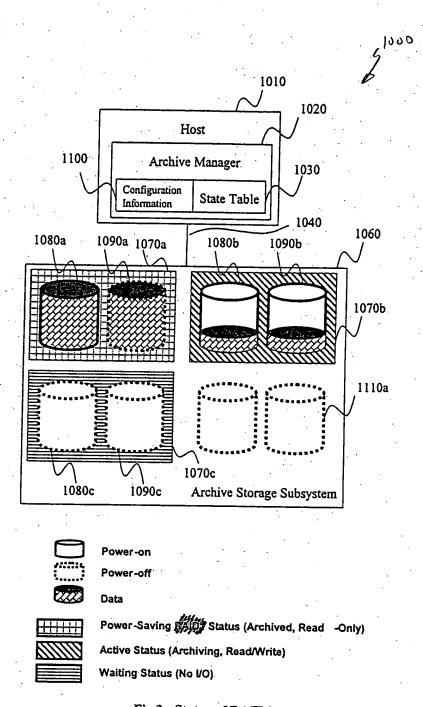


Fig 3: Status of RAID1

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,		3070	3080
		\sim	\sim
10		Default	Setting Range
20	Number of Disk in RAID1 Group	2	less or equal total of disk
30	Number of Accessible Disk in RAID1 Group	1	less or equal Number of Disk in RAID1 Group
20	Power Status of Accessible Disk	Saving made	ON, Saving mode, OFF
40	Power Status of Standby Disk	OFF	ON, Saving mode, OFF
	Power Status of Waiting Disk	OFF	ON, Saving mode, OFF
50 \	Trigger of Role Reversal for Power Saving RAID1	Time (one week)	Time (day, week, month), Equation of Access Time
50 \	Threshold of Maintenance Warning	70% of total used space	total used space (%), total used space (Giga Bytes)
00 \	Number of Spare Disk	10% of Number of Disk in Archive Storage Subsystem	less or equal a half of Number of Disk in Archive Storage Subsystem
\sim	Time of Mode Switching	1 week	hour, day, week, month
	Rewrite after read-only	No	Yes, No

4 Fig ≠: Configuration Information

4			•		-		
	209 	00					200
	disk00	disk01	disk02	disk03	disk04	disk05	Tota
Power Status	On	Off	On	On	Off	Off	
Disk Condition ·	good	, good	good	good	good	good	
RAJD1 Group #	0000	0000	0001	0001	0002	0002	
Operational Mode	Power saving		active		waiting		-
Attributes	Read-only		R	w	V No		2.
Used space	320GB		20	GB	. 00	3B	340G
Free space	0GB		300	GB 320		GB	620G
Total RAID1 size	320GB		320GB		320GB		960GI

Fig 5 : State Table

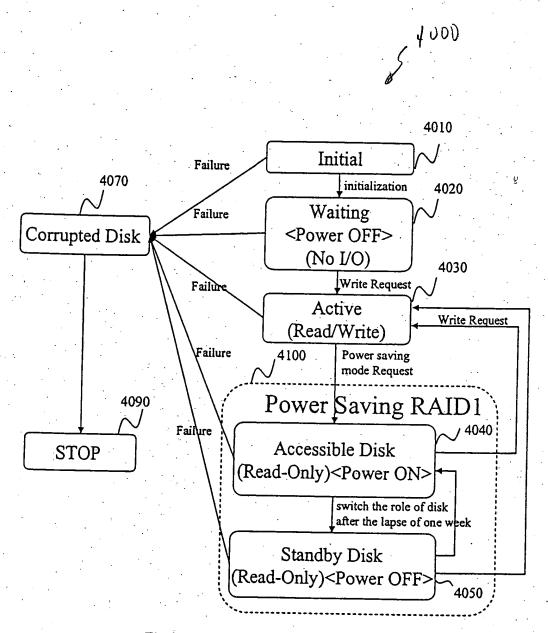


Fig 6: State Transition Diagram (default)

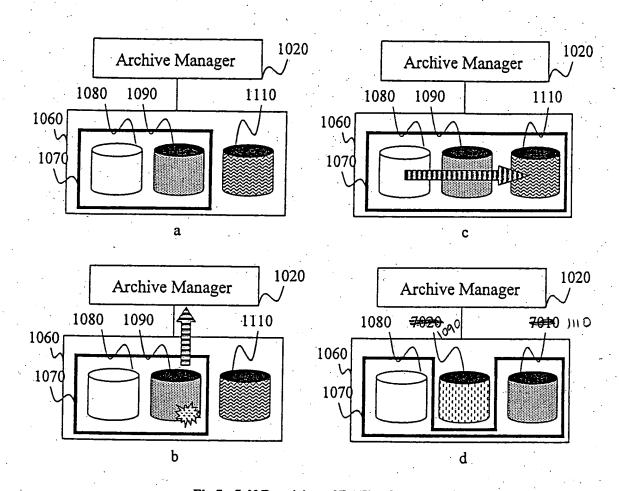


Fig 7: Self-Repairing of RAID1 Group

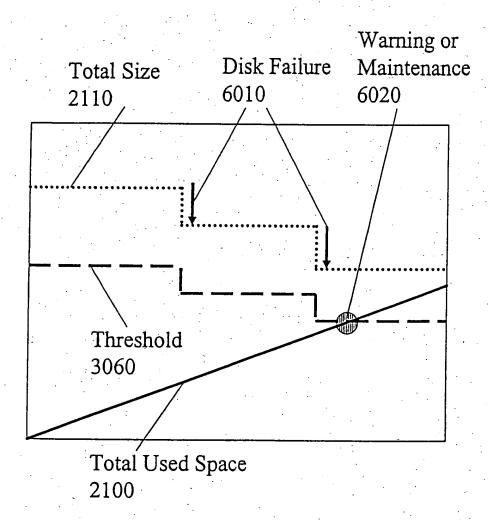


Fig 8: Threshold Management

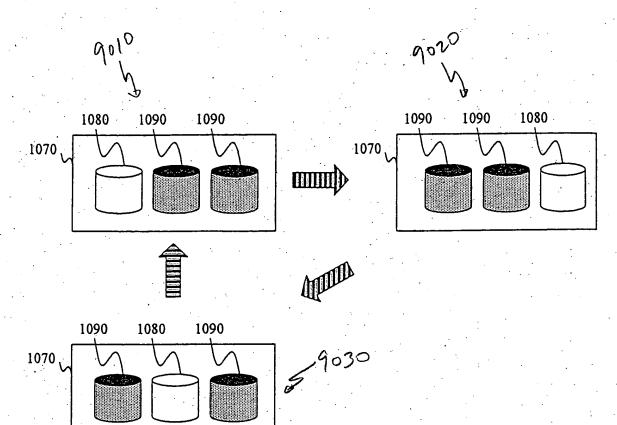


Fig 9: Role Reversal of Disks